

Patent Claims

1. Method for carrying out a blind handover in an intersystem and interfrequency handover in mobile communication systems, one mobile station (30) being supplied with radio signals from several base stations (23, 24), characterized in
that a propagation time measurement by the mobile station (30) is carried out at the air interface of the signals received by the base stations (23, 24),
that the measured propagation times are transmitted to one of the base stations (23, 24),
that on the part of the mobile communication network the residence site of the mobile station (30) is determined on the basis of the propagation time measurement data,
that, based on the determined residence site, with the aid of a data base at least one suitable base station (20) is selected for an intersystem or interfrequency handover,
that the data of the selected base station (20) required for a handover are transmitted to the mobile station, and
that the mobile station (30) carries out the handover to the selected base station (20).
2. Method as claimed in claim 1, characterized in that by the mobile station (30) additionally the signal strength and/or the signal quality of the base stations (23, 24) are measured and transmitted to one of the base stations.
3. Method as claimed in one of claims 1 or 2, characterized in that during the handover the mobile station (30) changes from a base station (24) of a first mobile communication system to a base station (20) of a second mobile communication system.

4. Method as claimed in one of claims 1 to 3, characterized in that the mobile station (30) during the handover changes the utilized radio frequencies.
5. Method as claimed in one of claims 1 to 4, characterized in that the effective coverage range of the base station (24) supplying the mobile station before the handover differs from the effective coverage range of the base station (20) supplying the mobile station after the handover.
6. Method as claimed in one of claims 1 to 4, characterized in that the effective coverage range of the base station (24) supplying the mobile station before the handover overlaps the effective coverage range of the base station (20) supplying the mobile station after the handover.
7. Method as claimed in one of claims 1 to 6, characterized in that the precise residence site of the mobile station (30) is determined by means of a GPS receiver.
8. Method as claimed in one of claims 1 to 7, characterized in that by means of a central clock a frame synchronization is carried out between the participating base stations (23, 24).
9. Method as claimed in one of claims 1 to 8, characterized in that discrepancies of the frame synchronization between the base stations (23, 24) are determined, stored in a matrix and utilized for calculating the residence site of the mobile station (30).